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Subject: NFHS 3 PSU scrambling question  
Posted by [archanapkar](#) on Thu, 28 Nov 2024 14:16:13 GMT  
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Hi,

I want PSU level variables and initially intended to use IPUMS variables. These are missing for NFHS 3 in IPUMS and Ivan from the IPUMS forum said this in response: "The India Standard DHS 2005-06 (NFHS-3) contained an HIV testing component that necessitated scrambling of PSU numbers in order to preserve respondent confidentiality. As a result, IPUMS DHS did not create PSU-level measures. From reviewing the documentation, it is not clear to me whether this scrambling retained the same households within each PSU or whether households were scrambled across PSU. I recommend reaching out to the DHS Program to confirm the procedure used. In the former case, you may merge an IPUMS DHS extract with a data extract from the DHS program to add PSU identifiers to your observations and calculate these variables."

Please clarify how the households were scrambled. Thank you!

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Subject: Re: NFHS 3 PSU scrambling question  
Posted by [Janet-DHS](#) on Wed, 04 Dec 2024 19:43:03 GMT  
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Following is a response from DHS staff member, Tom Pullum:

Households are NEVER switched from one PSU to another.

In all DHS surveys, the PSU codes are scrambled--in the sense that they are changed from what they were in the original sampling frame, in order to protect the confidentiality of the selected households and respondents. That has nothing to do with whether the survey included HIV testing.

The GPS coordinates for a PSU are always displaced randomly within a circle around the original GPS coordinates, but staying within the same district. The displacement procedure is described in our basic documentation. The displaced coordinates are given in geographic data files, and DHS does not retain the original coordinates.

The NFHS-3 (the India 2005-06 DHS survey) does not have geographic data or geographic covariates files. Other surveys from about the same years do have such files, but I doubt that the absence of geographic files has anything to do with the HIV testing. The NFHS-4 also included HIV testing, and it DOES have geographic files.

The absence of geographic files means that we cannot provide the geographic coordinates (even after displacement) for the PSUs in this survey, and there is no way to link to geographically structured data, at least at the level of the PSU.

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